

### REMARKS

Reconsideration and withdrawal of the rejections of the claims, in view of the amendments and remarks herein, is respectfully requested. Claims 57 and 62 are amended and claim 76 is added; as a result, claims 57-76 are now pending in this application. The amendments are intended to advance the application and are not intended to concede to the correctness of the Examiner's position or to prejudice the prosecution of the claims present prior to amendment, which claims are in a continuation of the pending application.

#### The 35 U.S.C. § 102 Rejections

Claims 58-68 and 71-74 were rejected under 35 U.S.C. § 102(b) as being anticipated by Perl et al. (Biotechnology, 14:624 (1996)). Claims 57-60, 62, 64-67, 71-73, and 75 were rejected under 35 U.S.C. § 102(b) as being anticipated by Enriquez-Obergon et al. (Biotechnologia Aplicada, 14:169 (1997)). These rejections are respectfully traversed.

Perl et al. disclose that short exposures of diluted cultures of *Agrobacterium* to embryogenic calli of *Vitis vinifera* cv. Superior Seedless grape result in plant tissue necrosis and subsequent cell death (abstract) (the Examiner notes that grape is dicot plant at page 5 of the Office Action). To determine the effect of various antioxidants on necrosis, Perl et al. added antioxidants to the solid co-cultivation medium (Table 1). Perl et al. relate that the presence of polyvinyl pyrrolidone (PVP), cysteine, ascorbic acid, or citric acid in the solid co-cultivation medium was unable to reduce necrogenesis, while the presence of dithiothreitol (DTT) or polyvinyl polypyrrolidone (PVPP) in the solid co-cultivation medium reduced browning to some extent but did not completely inhibit the phenomenon (page 625). Note that Perl et al. report that the presence of cysteine, a sulfhydryl containing agent, in the solid co-cultivation did not reduce necrogenesis.

Perl et al. also relate that an optimal effect in blocking necrogenesis was obtained with a double-layer medium containing PVPP and DTT, but that necrosis was not blocked when a double-layer medium with PVP, ascorbic acid, or cysteine in the solid medium, with or without DTT in the liquid medium, was employed (page 625). It is disclosed that stably transformed grape was obtained after co-cultivation of grape callus with PVPP for 48 hours, followed by

incubating the callus in a double-layer medium with PVPP in the solid layer and DTT in the liquid layer for 7 days (Figure 3).

Perl et al. do not teach that sulfhydryl-containing agents can enhance *Agrobacterium*-mediated transformation of monocot tissue or cells. Nor do Perl et al. disclose that cysteine at 50 mg/L to 2000 mg/L can enhance *Agrobacterium*-mediated transformation of plant tissue or cells.

Enriquez-Obregón et al. report on the effect of three antioxidants on the growth of *Agrobacterium* in sugarcane. It is disclosed that a combination of ascorbic acid, cysteine and silver nitrate was added to the precoculture liquid medium (for 6-12 hours with explants), the coculture medium (10 minutes with *Agrobacterium* in liquid culture, then on solid medium for 3 days), or both. Then explants were placed on selective media and the number of transformants determined (Table 2).

Enriquez-Obregón et al. do not teach a method in which cysteine, e.g., at 50 to 2000 mg/L, is employed to enhance *Agrobacterium*-mediated transformation of plant cells or tissue.

Accordingly, withdrawal of the § 102(b) rejections is respectfully requested.

*The Nonstatutory Obviousness-Type Double Patenting Rejection*

Claims 58-68 and 71-74 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,759,573. A Terminal Disclaimer is enclosed herewith.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6959 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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June 11, 2007

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 11 day of June 2007.

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